Ghana Journal of Geography

journal homepage: https://www.ajol.info/index.php/gjg/ https://journals.ug.edu.gh/index.php/gjg/

Land Market and the "Sendoff" of Peri-Urban Agriculture in Tanzania: An Evolutionary Analysis of Practices and Actors

Kelvin Haule[1*] & Bupe Kabigi[1]

[1]Department of Geography and Environmental Studies, P. O. Box 395, University of Dodoma (UDOM), Tanzania

article info

Article history:
Received 12th January 2024
Accepted 11th April 2024

Keywords:
Land Market,
Peri-urban Agriculture,
Evolutionary,
Actors,
Practices.

abstract

Land markets such as sales, purchase and rentals in African cities were uncommon before colonialism. They emerged with the colonial land administration systems and reforms. Today, land markets have replaced traditional non-monetary land market practices and they are transforming land uses and or ownership. With the evolutionary theory of land rights (ETLR), this article analyses the nature (types, forms and characteristics) of land markets and their influence on changing peri-urban agriculture and livelihood strategies. Also, by mapping historically, we shed some lights on how land markets evolved before and after colonialism. In addition, we examine the land use/cover changes occurring in peri-urban areas due to prevalence of land markets. We used a mixed approach of collecting data through questionnaires, interviews and critical case study discussions with land market actors and government officials. In assessing land use/cover changes (2004-2017), we deployed World Bank data on Earth observation (2019) and Mbeya city council profile (2015). Largely, we found that today, monetary land markets are widespread and in different forms such as formal, informal, speculative, entrepreneurial, and land grabbing. These contribute to transformation of land use and peri-urban agriculture into other non-farm activities. Since these changes are mostly informal, they cause a "sendoff" or "a farewell party" of peri-urban agriculture. In case this transformation continues to be unmanaged, land markets will become a blight than a blessing to most indigenous people selling land voluntarily or involuntarily. Governance of land market is, therefore, imperative.

Introduction

Land market has grown out of land reform debates and interventions not only in African countries, but also in other developing countries. In Africa, land reforms grew since 1980s due to socio-economic liberalization emphasizing non-state land delivery mechanisms than the state provisioning (Manji, 2006). State provisioning of land was argued to be unproductive, thus, affecting public investments (Beinstern, 2002; Sundet, 1998). Amid to these state reductionists or confrontations, land market grew. Land market refers to the process of buying and selling of land rights and associated assets (Napier *et al.*, 2013; Wallace and Williamson, 2006). When these transactions involve the state, they are formal land markets and when the state is not involved, they are informal land markets.

Two schools of thought (Classical and Marxists) explain the growing interests on land market. The Classical economy school of thought embodies proponents and or admirers of land markets like De soto (2000) and Needham et al (2011) who view land markets as an effective means for land administration and socio-economic development. In their views, land markets foster land redistribution by easement of the bottlenecks in government's land provisioning (Hall and Paradza, 2012; Holden and Otsuka, 2014). Meanwhile, Wallace and Williamson (2004) argue that land markets provide more wealth and opportunities to actors such as buyers, sellers and middlemen. Land markets are explained as useful for accessing loans by land owners (De soto, 2000). Efficient and effective land market improves the performance of national economies (Dale *et al.*, 2011).

On contrary, Marxist school of thoughts accuses land market and liberalization because of their impacts on the poor and labour relations since they are not seen to offer universal benefits. Because of these shortfalls, in some African countries like Tanzania, land selling and purchase were prohibited before land reforms of the 1990s (Kaijage and Tibaijuka, 1998). In Kenya, Thuo (2013) revealed that although land market offers some positive impacts, most of the winners are the middle and high-income people. Additionally, Nelson (2008) found that in peri-urban environments, market economies affect peri-urban agriculture by transforming land ownership and reducing farmlands. This is done through converting farmland uses into non-farm activities and thus, affecting livelihood activities (Laurence, 2013). In view of Azadi et. al, (2020), unmanaged transformation and land markets are detrimental because land is the main asset for livelihood in Africa since owning land offers employment, food, income and or a social status. Hence, anything that transforms land ownership affect all these benefits.

Despite such a knowledge development on land market (in terms its growth, generalized positive and negative debates), the available studies and or research on land market in Tanzania fall short of comprehension on what forms, types and characteristics of land markets have grown today. Also, the way these land market practices are causing new forms of peri-urban agriculture in terms of what practices, tools, and new farm types are being established, are hardly featuring on land market studies. A few studies have shed lights on land market as instrumental in accessing land (Kironde, 1995) and how it will continue affecting land use (Kombe, 2005). Others like Sanga and Mwasumbi (2019) and Kombe (2005) have shown the way land sales and purchase are becoming new forms of investment by owning and speculating land assets. Therefore, more is needed to unpack not only on land use changes, but also on the direction of change of these land uses, and the sectoral or occupational changes that occur to indigenous people after selling land. This information is significant to conceptual and practical contribution in urban farming, town and regional development.

* Corresponding author.
E-mail addresses: oswinkelvin@gmail.com (K. Haule).

http://dx.doi.org/10.4314/gjg.v16i3.2

This paper, therefore, explores an historical mapping of the evolutions of land market (in terms of forms, characteristics, actors) in Tanzania and examines the current land market practices (forms, types, modes of land acquisitions and land values) that affect peri-urban agriculture and land uses. Lastly, the paper examines the land use/cover changes, and their direction of change in secondary cities by drawing a case from Mbeya city.

Theoretical Context

We situate the evolution of land markets and actors within the Evolutionary Theory of Land Rights (ETLR). ETLR belongs to a bundle of property rights theory which assumes land is a bundle of rights (Barry, 2015). Founded in the property rights theorists (Alchian and Demsetz, 1973; Demsetz, 1976), the theory uncovers the limitations of customary land rights and advocates for replacing them with private rights. The theory postulates that individualized and private properties which can be exchanged through markets are economically efficient. ETLR has received much contribution from Platteau (1996) who suggested that evolution of land rights through private bundles fosters agricultural productivity and efficiency use of land. In view of ETLR scholarships, the fluidity of land rights magnifies due to rapid population growth and commercialization of agriculture (Moyo and Yeros, 2005). In such circumstances, property rights, population growth and urbanization promote efficient allocation of land and capital.

In this paper, ETLR is adopted to analyze the evolutions of land markets, peri-urban agriculture and livelihood strategies. More specifically, ETLR informs how and the way land rights (user rights and livelihood strategies) are transformed when land is sold or rented. One of the strengths of this theory is its wider scope of application. For example, although it is frequently used on land rights, it can be used in diverse natural resources including forests, minerals and water. Studies such as Cai et al., (2019) have deployed this theory to examine human-land interactions and Miller et al. (2019) to systematically review the impact of property rights on poverty reduction. The human-land interactions especially in Africa has prevailed before the colonial era depending on the way land was and has been utilized either through farming or pastoralism. In other words, land has been used as the host of human activities (Rakodi, 2002; Napier *et al.,* 2013, Durand-Lasserve and Selod, 2007). Others scholars such as Wallace and Williamson (2006) have examined the development and changes of land rights and land market.

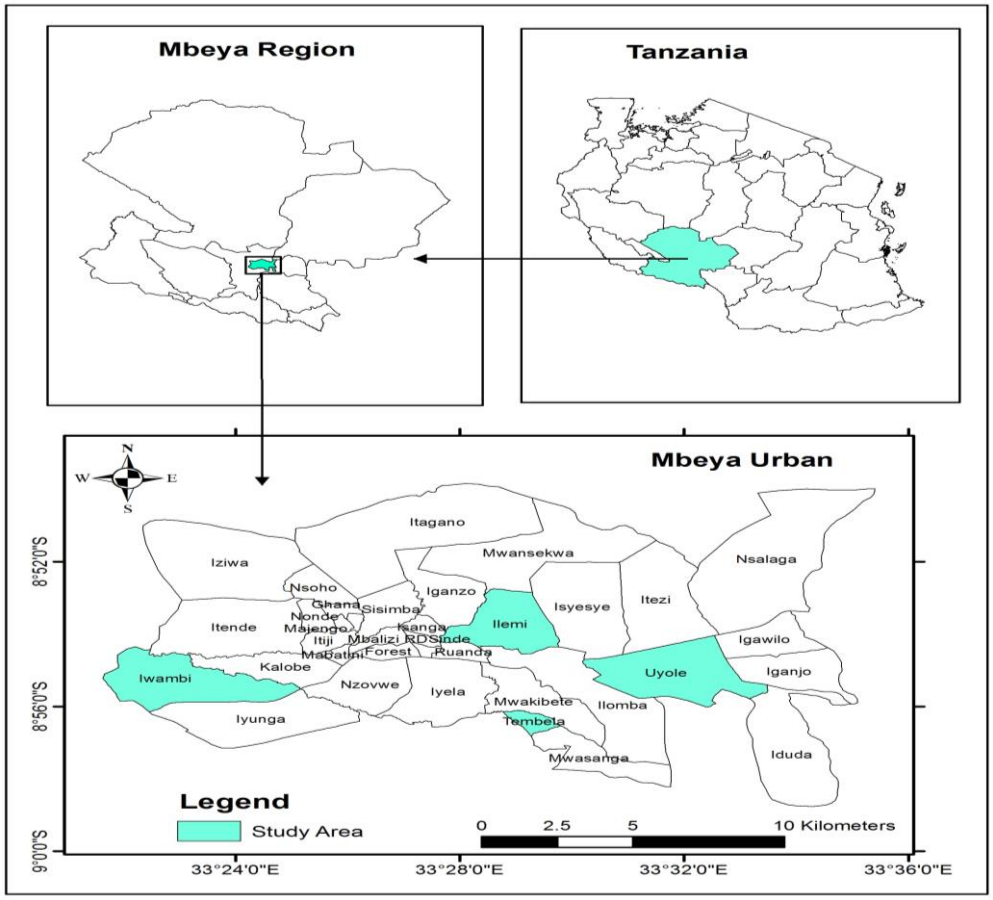
Land rights develop and grow through various stages: stage one is interaction, stage two is development of land rights, stage three is trading, the fourth is property rights and stage five is secularization and corporatization.

The evolutions of land rights have also been assessed in terms of distribution and security of land tenure. Azadi et al (2020) examined the changes in the distribution of land rights in relations to development theories. Moreover, evolutions of land rights in African countries have been analyzed on the compulsory land acquisitions and land reforms. However, in view of Edaku et al. (2023), there is little justifications to prove that land acquisition and reforms have direct impact on improved livelihoods of the poor or indigenous people. Others have studied these evolutions in terms of formalization and titling and found conflicting results in Tanzania (Panman, and Gracia, 2022).

With all these advocates and accusations of the theory, there is little evidence to offer the way formalization or titling enhances people's livelihoods when majority of the local people have no title deeds while informalities in land market are growing. In this paper, we, therefore, apply ETLR to analyze the way replacement of communal or traditional land market practices are contributing to transformation of peri-urban agriculture, land use and livelihood activities in Tanzania.

Research methods

This article is based on a study conducted in four wards namely Iwambi, Uyole, Ilemi and Tembela in Mbeya city, Tanzania. The city is located between latitude 8° 50' - 8° 57' South of Equator and Longitude 33° 30'- 35° 35' in the Southern highlands of Tanzania (Mbeya city council, 2015) (Map 1). Mbeya city is one of secondary cities where urbanization and land market practices are heightening. It is among the cities with rapid population growth that affect access, use and transactions of land rights. These four wards were purposely selected because they are characterized by intensity of land sales and purchase. They are among the wards with multitudes of land sales, and purchase. Because of the prevailing land markets, land use, land ownership and peri-urban agriculture are changing in these wards. There is a growth of non-farm activities and new types of urban agriculture is emerging in response to declining farmlands. People commute daily between peri-urban and urban areas for purchasing and /or selling of goods.



Map 1: Location of the Study Wards in Mbeya urban
Source: Cartographic Unit, Department of Geography and Environmental Studies, UDOM, 2023

The study adopted a Cross-sectional-actors' oriented approach where 387 households were randomly selected through systematic random procedures. Different actors of land market (sellers or farmers who were heads of households, middlemen, buyers, the government, lawyers) were engaged in the study. When sampling heads of households, we obtained a list of households from the government (at sub-ward level) and systematically sampled them. These were engaged through structured questionnaires. Structured questionnaires enabled engagement of many respondents through a standardized inquiry (Bhattacharjee, 2012; Corbetta, 2003; Walliman, 2011). From these, we collected information on motives for selling land, the prices at which they sell (land values), types of land use and livelihood strategies. Interviews were conducted to 18 government and non-government officials (2 district land officers, 4 middlemen, 4 Ward Executive Officers (WEOs), 4 Sub-ward officials, 2 officials from the ministry of land and human settlement development, and 2 land valuers). These were purposely sampled because of their roles on land matters. From key informants (KIs), we collected information on changing land uses, farming practices, land relations, policies and regulations governing urban agriculture.

We also involved people who sold their land, their neighbours, sub-ward land committee members and street chairpersons in 8 focus group discussions (FGDs) to discuss the matter. Two (2) FGDs were conducted in each ward (one for males and one for females). We discussed on forms of land markets prevailing, prices of land, changing land use, urban farming practices and the strategies people take after selling land. Furthermore, several documents including policies, acts and reports that are relevant to land markets and peri urban agriculture were reviewed. These documents include the land policy of 1995, Urban Planning Act 8 (2007), land use planning Act (2007) and Human Settlement Development Policy of 2000. Reviewed reports include World Bank report of Earth observation (World Bank, 2019) and Mbeya city profile (2015). We visited the city council office, ministries and their websites to obtain these documents. These documents were reviewed to get information on land use/ cover changes (2004-2017) occurring in the peri-urban areas. Descriptively, data on modes of land acquisitions, formal and informal land sales, land values were summarized, cross-tabulated and frequency distributions determined through a statistical package for social sciences software (SPSS 22). Miles and Hubberman's Framework (1994) for qualitative analysis was used for data reduction, transcription of the data into various themes, interpretation, display and drawing conclusions (Miles and Hubberman, 1994).

Results and discussions

Pre- and post-colonial land markets: changing rules, forms and actors

As in other developing countries, land market practices in Tanzania are not new. Their history can be traced in the economic changes that reduced state power into non-state and market economy (Bernstein, 2002). The economy that transformed agrarian and feudal economy into industrial and capitalistic economies are responsible for heightening land markets. Land markets, rules, ownership, actors, forms and benefits or impacts have been changing with the changes in governance, regime and national philosophies. We traced and grouped the changes in land market practices in Tanzania into five periods: pre-colonial era (prior to 1880s), colonial era (1880s-1960), independence and socialist era (1960s-1970s), Structural Adjustment period and privatization (1980s-1990s) and the land reforms period and contemporary epoch (1990s to date) (Table1).

During the Pre-colonial era (before 1880s), land markets were in form of exchange of land with other products such as cattle, gifts, and crops. Someone in need of land had to exchange it with other products he or she owned. Other transactions were accomplished through land rentals, and people with no land rented land to land lords. These forms of land market were non-monetary because land was viewed to possess no monetary value (Kaijage and Tibaijuka, 1998). Chiefs and clan heads approved the transactions. Tribalistic and chiefdom's transactions such as Nyarubanja system, Mwene, Mtemi, Mtwa, Ifumu and Ngoni transactions to list a few were common although they differed from one kingship or tribe to another. One of the land officers in Mbeya city clarified further that *"During that period, land had traditional or customary values. Selling land was seen to be selling clan's or family history or values".* These transactions did not affect agriculture because there were no land use changes. Also, there were less land disputes and the transactions did not cause dispossessions or exploitations.

During colonialism (Germany-1880s-1890s) and (British-1920-1960s), various laws such as imperial ordinance were enacted to regulate land acquisitions during the German colonialism (1895). During the British administration of Tanganyika (1920-1945), the land ordinance of 1923 was enacted that declared all land as public under the governor. Leaseholds were granted up to 99 years. The native people accessed land under customary land tenure systems. In 1926, the British government enacted land regulations which were reviewed in 1927 to foster economic and productive use of land (Sundet, 1998). These regulations built a foundation for land sales and speculations. The regulations discouraged customary practices and encouraged individualization and freehold for the whites. Customary land tenure was seen to curtail agricultural productivity. Exploitations, dispossession and segregations in access to and use of land were growing. The Europeans and Asians enjoyed a favour while blacks were denied or hardly served. One of the land valuers asserted that *"actually, these land relations marked the foundations for exploitative and accumulative land markets".* Land sales, speculations, alienation and residential uses mushroomed during this stage (Sundet, 1998; Kaijage and Tibaijuka, 1998). For example, the Meru land case of 1952 alienated about 78,000acres of land from 3000 natives (Lessie and Jackson, 2019; Tate and de Carvalho, 2019). After independence, land market was seen not offering equal distribution and did not address class-oriented economy. Land was nationalized and held under the custody of the president (Kironde, 1995*).* When decolonization movements sparked, the government under Mwalimu Nyerere, took power to administer all land matters. The government solidified power to control and abolish freehold and promoted leasehold (up to 99 years). Nationalization aimed to discourage landlordism and speculations (Sundet, 1998). To justify this, Mwalimu Nyerere's notable paper: *Ujamaa-Socialism: The Basics of African Socialism* emphasized that "*We must not allow parasites in Tanganyika. The government under TANU (the political party) must go back to African traditions of land holding that is not in favor of freehold and land speculation" (Nyerere 1962a:5).* Nationalization of land was geared towards effective agricultural development, and it continued after the Arusha declaration in 1967 when socialism and self-reliance were made the policy of agricultural development. Land sales, rentals and purchase were prohibited, but only permissible through chiefs, and clan heads or local leaders. Indeed, after independence land market, was in favour of agricultural productivity and did not contribute to accumulation. People exchanged land for farming or pastoralism. Land markets were also dominated by non-monetary exchanges.

Table 1: Evolutions of Land Market in Tanzania: 1800-2020s

Period	Forms or types of Land market	Key Actors
Pre-colonial era	Land rentals Non-monetary exchange Low land value	Farmers & pastoralists
Colonial era (1880s-1960)	Land rentals Monetary exchange (sales & purchase) Discriminatory Leaseholds	Colonialists Farmers & pastoralists Whites (Indians)
Independence & Socialist Era (1960s-1970s)	Land rentals Monetary exchange (sales & purchase) Socialist & communal land Non-discriminatory	Government Farmers & pastoralists
Structural Adjustment Period & privatization (1980s-1990s)	Land rentals Monetary exchange (sales & purchase) Discriminatory & growing classes	Private & financial sector Elites Businessmen Farmers &sellers
Land reforms period & contemporary epoch (1990s to date)	Land rentals Monetary exchange (sales & purchase) Socialist & communal land Formal & informal	Government High-&middle-income people Elites Farmers

Source: Adopted from Sundet (1998), Kaijage and Tibaijuka (1998)

The dominant type of land market could be viewed as agricultural land markets. As added from one of the WEOs that *"during this period, Mwalimu Nyerere was strong and he discouraged land tenure systems that cause exploitations."*

During privatization and Structural Adjustment Programmes (SAPs) period (1980s-1990s), market economy dominated the major means of production. Anti-socialist strategies and liberalization (led by the World Bank and IMF) penetrated in Tanzania (Sundet, 1998). Commodity exchange (land sales and purchase) gained momentum. Privatization and SAPs had implications on urban agriculture although the economy was not performing well. In towns, people were forced to engage in peri-urban agriculture for survival against economic hardships or diversification strategies (Briggs and Mwamfupe, 2000). Land conflicts and accumulation increased which compelled the government to establish the land policy of 1995, Land Act 4 and Village Land Act 5 of 1999 (Myenzi, 2005). To formulate the land policy, the government established the Presidential Commission of Inquiry into Land Matters chaired by Prof. Issa Shivji in 1991 (Kaijage and Tibaijuka, 1998). The Commission documented the challenges of land administration and legal weaknesses of the colonial government, and the SAP. It recommended for land leases of not more than 10 years for foreigners for an area that does not exceed 3 acres (Sundet, 1998). Sales and transfers were recommended to be approved by the district or ward's committees and discouraged speculated land sales and transfers. Actually, this was occurring in most African countries. In Kenya, the Commission of Inquiry into Land Law System (the Njonjo Commission) and commissions in Ghana, South Africa were established with the same missions (Manji, 2006). These reforms liberalized and legalized land markets. For example, section 48 of the Land Act 4 in Tanzania (URT, 1999) established a framework for disposition of land sales and purchases. Since then, land markets have become a livelihood strategy, an accumulative instrument and a free-market economy element, and these transform land ownerships and use. Hence, the analysis of contemporary land market practices gains more weight when the world is dominated by commodity exchange and market economy.

Contemporary land market practices: mode of acquisitions, land values, types and land use

The current land market practices are characterized by different modes of acquisitions, forms or types, actors, land values and land use. These are important elements to consider when analyzing the changes occurring in agriculture in cities. Because of their impacts, some studies have linked them with changes in land rights and farming in the city (Dale *et al.*, 2011; Wallace and Williamson, 2004). Bryceson (1997) also associates increased market liberalization and urbanization with de-agrarianisation. Consequently, evaluating the way people access land today is significant to show whether access is governed or ungoverned and where are land rights concentrated. As for land values, they tell of opportunities and challenges occurring on land rights and ownership of land. Dominant land uses or direction of changes shed some lights on which land uses are gaining or are losing. The following sections attempt to discuss these land market characteristics and their implications to peri-urban agriculture.

Modes of land acquisition

Modes of land acquisition refers to the means and channels of accessing and owning land (Msangi, 2011). They inform the current or future land relations and ownerships (Reznik, 2014). They also represent the nature of property rights and governance systems. In Tanzania, acquiring or accessing land is guided by Land Act 4 (1999), Village Land Act 5 (1999) and the Land Policy (1995). Section 25 (1) a-i of the Land Act 4 (1999) offers procedures for applying and approving requests for ownership of land in urban areas. Part (v) describes responsibilities of the government in providing and allocating land. However, over 20 years of implementing these laws and policies, the government has not managed to provide land to people according to laws. Figure 1 shows that only 5% of the people interviewed in Mbeya city acquired land through government allocation, majority (55%) inherited and (39%) purchased land. In support of this argument, a report by the government (URT, 2009) revealed that most people (54.3%) inherited their land and (42.9%) purchased land. These results indicate that while the government's allocation of land is not performing well, land access through purchase replaces other means. In view of advocates of land markets such as De soto (2000), this is advantageous because the bottlenecks of accessing land are reduced (Dale, et al., 2002). Land markets (purchases, rentals) have replaced government allocation.

Nevertheless, results from both key informants and questionnaires show that customary practices of allocating land to relatives or children are still dominant. This is done through inheritance or provision of land as a gift or a motive for marriage. Inheritance is a common practice among the major ethnic groups which include Safwa, Malila and Nyakyusa in the region. Usually, children are allocated land during marriage or when they start their lives. In fact, providing land as a gift to a child or relative, and spouses is among the prestigious gifts in Tanzania. Traditional transfer of land rights has an inter-generational impact. This transfer has two meanings: it is a protectionary instrument for the clan or family, but it also guarantees an asset for livelihoods for children. This is because the recipients are not free to sell land inherited from parents or relatives. It is a curse to sell inherited land. Essentially, traditional transfer of land among family members is a means for social organization and a social capital, and it is a representation of family relations (Manji, 2006). This is also dominant in most African countries especially West Africa (Durand-Lasseve *et al*., (2013).

In terms of what drives growth of land markets, demographic growth, geographical factors, policy and capacity inefficiency and market economy are among the key drivers. Demographic factors such as rapid population growth drives more demand for land in the city. For example, the city population grew from 152, 844 in 1988 to 256, 586 in 2002 and from 385, 279 in 2012 to 541,603 in 2022 (URT, 1988; 2002, 2012; 2022). This growth drives more demand for land. Geographic location of the city also drives intensification of land market. Mbeya city is located in the Southern highlands as a gateway to Malawi, Zambia, South Africa and the Democratic Republic of Congo (DRC). This location motivates more industrial and commercial activities by investors from neighboring countries. Growth of land sales, purchase or rentals, are also attributed to global market economy, globalization and ICT. The world is increasingly being liberalized and capitalistic in nature, thus, emphasizing free market. Goods are freely sold or purchased in the market, so as land. There is a rush for land by people from other regions in Tanzania and other countries. Above all, the inability of the government to supply sufficient plots promotes and fosters free trade of land. Inability manifests through the shortage of land provided through government channels. For example, the annual report of the Urban Planning and Land Department in Mbeya city revealed that between 2006 and 2012, the government supplied only 5395 surveyed plots out of 11,909 applications received (Mbeya city, 2015). This means that there were 6514 extra demands for land than what could be supplied. The imbalance between demand and supply of formal, planned and surveyed land plots compel people to purchase land from indigenous people. This problem is not only common in Tanzania, but most government in Africa are unable to plan, survey and allocate sufficient plots (Rakodi,2004)

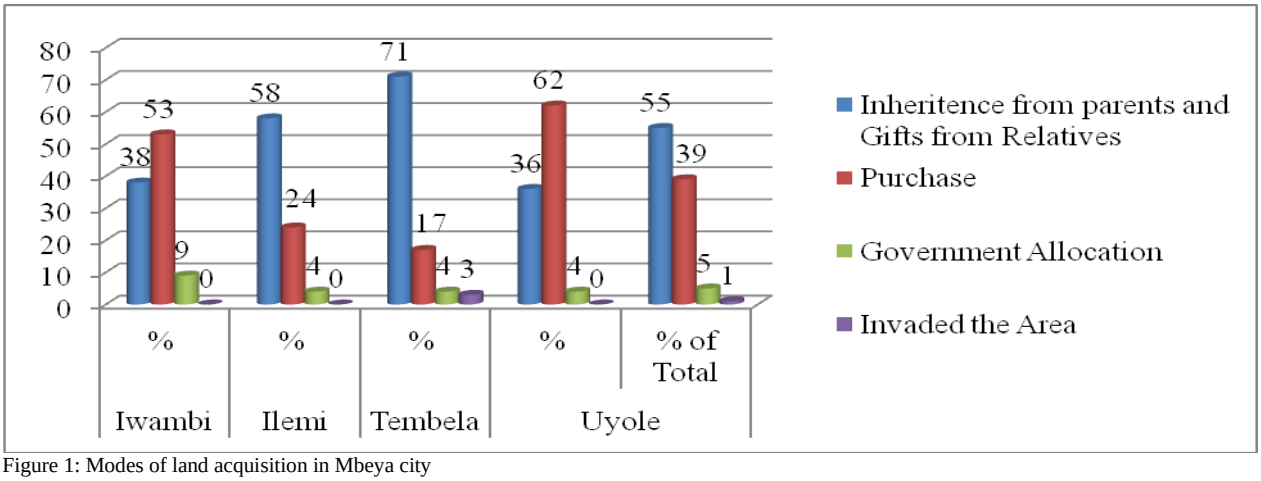


Figure 1: Modes of land acquisition in Mbeya city
Source: Research, 2022

Types and forms of land markets

Today, there are different types and forms of land markets which have implications on city agriculture. Types and forms could be formal or informal depending on whether they are regulated or not. To be regulated means that they are conducted according to prevailing laws and policies (URT, 1999). Field results (Table 2) show that most of the land sales and purchases are not known or approved by the government. More than half of the land sales and purchase did not involve government authorities (informal). In total, 69% of land sales were not approved by the government, and only 31% involved the government. Informal land sales were higher in Ilemi ward (80.5%), Tembela ward (76.9%), Uyole ward (80%) and moderate in Iwambi ward (43.9%) as presented in Table 2. This implies that Iwambi ward is surveyed while other wards are mostly not surveyed. This shows that informal land markets are dominant in informal settlements, and potentially hazardous areas.

Informalities have driven different types of land markets. Speculative land markets i.e purchasing of land when prices are low waiting to sell when prices heighten are growing (Kusiluka and Kongela, 2016). This could be treated as an entrepreneurial land market. Incremental land markets refer to land sales in piecemeal by land holders (Haule, 2017). Small holder farmers sell their land in pieces to meet their household's needs such as education, health, housing renovation and food purchase. Others are accumulative and grabbing land markets which involve purchase of land as a form of resource accumulation and land lordism. This is done by middle- and high-income people and elites. These are dispossessive land markets whereby small holder farmers are cheaply bought and sometimes turned into labours. Occasionally, government and non-government officials are involved in the purchase and sale of land for accumulative purposes. Web-based and e-land markets are also growing in Tanzania where sellers and buyers exchange their land rights through electronic markets. House rentals and land plots are advertised through social medias. In such diversity of land market typologies and forms, actors are also widening. These include the government, land owners, speculators, hoarders, investors, middlemen, financial institutions, lawyers and grabbers. Land has become an open system where new uses or users are discovered, and old owners are transformed into other assets ownership and livelihood practices.

Land market and land values

Land value is another important feature of land market with significant impact on land uses and peri-urban agriculture. Land value is the monetary worthiness of a land parcel in a particular location (Aikaeli and Markussen, 2022). Land value, expressed in terms of prices of land, determines the dominant type of land market in peri-urban areas. Also, increasing land values affect peri-urban and city farming because it reduces farmland while increasing the value of other land uses. For comparison purpose, we used both the assessed and the market value of land for detailed analysis of land values in the peri-urban environments. The former denotes the value of land assigned by the valuer. It guides the computation of land rents, compensation processes and collateralization for loan processing. The later (market value) is the price of land sold in the actual market. The way the price of land increases or decreases, it affects the size of the farmland and the nature of peri-agriculture. Field results (Table 3) show that the assessed price for residential areas in Iwambi ward (for block E and F plots) ranges between TZS 16,000 and TZS 25, 000 (equivalent to 6.4-10USD) per meter square; for mixed land use plots (between commercial and residential); they were sold between TZS 17, 500 and TZS 27, 500 (7-11USD) per meter square. This suggests that for a 600-meter square plot in a residential area, its price ranges between TZS 9, 600, 000 and TZS 15, 000,000 (3840-6000USD). However, the market value is even higher because the same plot is sold between TZS 15 and 40million (3840-16,000USD) in this ward.

In Ilemi ward, the assessed price for a residential plot range between 2000 and 3000 (minimum and maximum) (0.8-1.2USD) per meter square while the actual market price was between 10 and 30 million (4000-12,000USD). The assessed price (minimum and maximum price) for Tembela ward was not very much different as it ranged between 2000 and 3000TZS (0.8-1.2USD) per meter square and the actual market price ranged between 7 and 30 million (2800-12,000USD). Of the four wards studied, Uyole is the second ward with high land values after Iwambi). The government valued one metre square of land between 35,000 and 50,000TZS (14-20USD) for residential area and between 38,500 and 55, 000 TZS (15.4-22USD) for mixed uses (commercial and residential). Even the actual market price is higher (between 15 and 40 million (TZS) for a 20x30 meter square plot).

The rental prices for residential houses are also increasing, varying with the type of the house (detached, terraces or flats) and the facilities available. For a two bed rooms residential house which is fenced, with a kitchen, dining and a sitting room, the price ranges between 100,000 and 200,000Tshs (40-80USD) and for a three bed rooms house, with a kitchen, dining and a sitting room, the price ranges between 120,000 and 500,000TZS (48-200USD) (Table 4). Basically, various factors contribute to these variations such as availability of infrastructure (roads, water, sanitation services) and distance from the city centre.

Table 2: Formal and informal land sales and purchase in peri-urban areas

Wards	**Frequency and Percentage**	**Government's involvement when someone is selling/purchases land**		
		Yes	**No**	**Total**
Iwambi	F	32	25	57
	%	56.1	43.9	100
Ilemi	F	8	33	41
	%	19.5	80.5	100
Tembela	F	6	20	26
	%	23.1	76.9	100
Uyole	F	12	48	60
	%	20.0	80	100
Total	F	58	126	184
	%	31	69	100

Source: Research, 2022

Table 3: Land Values in the Peri-Urban Wards, Mbeya city

	Assessed value (Tshs) per m^2						Market value (Tshs) for a 20x30meter plot	
Ward	RA		CA+RA		INST		RA	CA + RA
	MIN	MAX	MIN	MAX	MIN	MAX		
Iwambi	16,000	25,000	17,500	27,500	16,000	25,000	15-40mil (6-6thous USD)	20-50mil (8-20thous USD)
Ilemi	2000	3000	NA	NA	NA	NA	10-30mil (4-12thous USD)	NA
Tembela	2000	3000	NA	NA	NA	NA	7-30mil (2.8-12thous USD)	NA
Uyole	35,000	50,000	38,500	55, 000	35,000	50,000	15-40mi l(6-16thous USD)	NA

Source: Research, 2022

KEY: RA = Residential Area, CA and RA = Commercial and Residential Area, INST = Institutional, NA=Not Applicable, MIN = Minimum, MAX = Maximum, mil=Million, thous=thousand

These results on assessed and market values and housing rental market offer some significant implications on the current and future use of land for agriculture in urban areas. Although there are some differences between assessed and market values, it shows that after the land reforms of 1990s, land values have kept growing. Prior to enactment of land Act 4 and Village land Act 5 (1999), land selling and purchase were illegal (Kaijage and Taibajuka, 1998). Conversely, land had no monetary value. Today, the value of land (assessed and market) is growing. This indicates that farming land in the urban areas faces a stiff competition from other land uses. Increasing prices of land will not only transform urban agriculture into other uses, but also farmers into pursuing other occupations. Farmers will continue selling their farmland to get money. This is both a blessing and a curse depending on how the income earned is utilized or how the transactions are undertaken.

Land markets and Land use/cover changes in Mbeya city

Land market and land values have well been associated with changing land uses (Briggs and Mwamfupe, 2000; Nelson, 2008). Figure 2 presents perceptions from the heads of households interviewed about the impact of land markets on land use changes. Of the total, 67% felt land sales transform farmland into residential uses, 16% pointed at speculations leading to vacant and undeveloped land and 7% associated land sales with increase in institutional land. People witness the way land market practices contribute to urban and peri-transformation. Table 5 (from 2019 World Bank data) indicates the trend in land use/cover classes between 2004 and 2017 in Mbeya city. The results indicate that while residential areas, commercial, industrial, institution, recreational and public spaces were increasing, agricultural, forests and bare soils were declining. For example, low density residential areas were increasing by 0.39% per year and very high-density areas were increasing by 0.11% per year. Agricultural land in the city declined by 0.75% per year. This is verified by cross-tabulated data on land use/cover change (Figure 3) which shows that in general, 74.60% of those changes were from agriculture to residential areas (blue color). Also, 17.78% were from agricultural areas into forest areas, and 7.62% were from agriculture to commercial, public, and military areas (red color). Geographically, transformation from agriculture into residential areas mostly occur in the peri-urban areas while agriculture into industrial occur largely in the urban core.

Land Market practices and the spatial-change from urban farming practices

Amid to growing land markets and types of farms, farmers and farming practices are changing (Nelson, 2008). All these changes affect the livelihoods of people. In this paper, we categorize these changes into three areas as summarized in (Table 6).

Practice or farming related changes manifest in terms of shift in farming techniques. For the past three decades, peri-agriculture was dominated by extensive farming. Farms were large, above one acre (Msangi, 2011). One of the WEOs emphasized *that "farmland was not a problem; farms were extensive, and we had no shortage of farms".* Farming practices were mono-cropping and food crop farming. Farmers grew mostly food crops like maize, beans, vegetables and onions.

Table 4: Rental prices for two and three rooms residential houses in studied wards

Ward	Price (Tshs) for a two- rooms, fenced, sitting, dinning & kitchen house	Rental price (Tshs) for a three-rooms house, fenced, sitting, dinning & kitchen house
Iwambi	100, 000-150,000 (40-60USD)	200,000-500,000 (80-200USD)
Ilemi	100,000-200,000 (40-80USD)	150,000-450,000 (60-180 (USD)
Tembela	100,000-120,000 (40-48USD)	120,000-400,000 (48-160USD)
Uyole	100,000-150,000 (40-60USD)	150,000-300,000(60-120USD)

Source: Research 2022

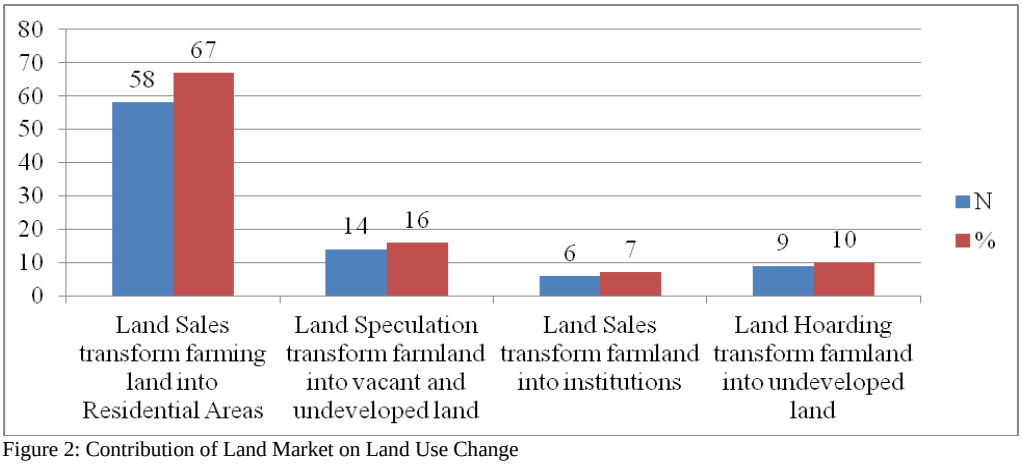


Figure 2: Contribution of Land Market on Land Use Change
Source: Research 2022

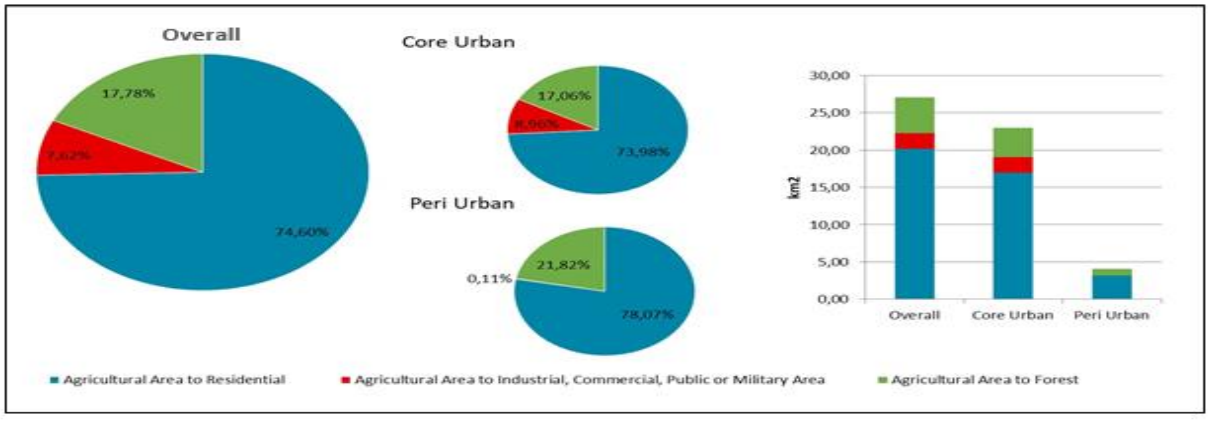


Figure 3: Changes of Agricultural Areas into other LU classes between 2004 and 2017; Presented as Overall, Core Urban and in Peri-Urban Zone in % (left) and km^2 (right) for Mbeya
Source: World Bank, 2019

Table 5: Land Use-Land cover classes in Mbeya city

LU/LC Classes	2017		2004		Change	Change/year		
	Sq.km	% of total	sq.km	% of total	sqkm	%	sq.km	%
Residential 0-10 %	24.65	9.73%	11.96	4.72%	12.69	5.01%	0.98	0.39%
Residential 10-30 %	11.65	4.60%	9.30	3.67%	2.35	0.93%	0.18	0.07%
Residential 30-50 %	11.02	4.35%	8.91	3.52%	2.11	0.83%	0.16	0.06%
Residential 50-80 %	15.10	5.96%	10.31	4.07%	4.79	1.89%	0.37	0.15%
Residential 80-100 %	6.50	2.57%	3.00	1.18%	3.50	1.38%	0.27	0.11%
Industrial, Commercial, Public, Military	7.70	3.04%	4.87	1.92%	2.83	1.12%	0.22	0.09%
Arterial Line	0.36	0.14%	0.36	0.14%	0.00	0.00%	0.00	0.00%
Collector	1.94	0.77%	1.95	0.77%	-0.01	0.00%	0.00	0.00%
Railway	0.31	0.12%	0.31	0.12%	0.00	0.00%	0.00	0.00%
Airport	0.34	0.13%	0.34	0.13%	0.00	0.00%	0.00	0.00%
Port	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Mineral Extraction and Dump Sites	0.39	0.15%	0.04	0.02%	0.35	0.14%	0.03	0.01%
Construction Site	0.76	0.30%	0.67	0.26%	0.09	0.04%	0.01	0.00%
Vacant Land	1.24	0.49%	1.33	0.53%	-0.10	-0.04%	-0.01	0.00%
Urban Parks	0.12	0.05%	0.05	0.02%	0.07	0.03%	0.01	0.00%
Recreation Facilities	0.42	0.17%	0.17	0.07%	0.25	0.10%	0.02	0.01%
Cemeteries	0.41	0.16%	0.23	0.09%	0.18	0.07%	0.01	0.01%
Agricultural Area	104.43	41.22%	129.15	50.98%	-24.72	-9.76%	-1.90	-0.75%
Forest	57.03	22.51%	59.25	23.39%	-2.22	-0.88%	-0.17	-0.07%
Natural areas (non-forested)	8.35	3.30%	9.73	3.84%	-1.38	-0.54%	-0.11	-0.04%
Bare Soil	0.21	0.08%	1.09	0.43%	-0.88	-0.35%	-0.07	-0.03%
Wetlands	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Water	0.38	0.15%	0.31	0.12%	0.07	0.03%	0.01	0.00%
Total	**253.32**	**100.00%**	**253.32**	**100.00%**				

Source: World Bank, 2019

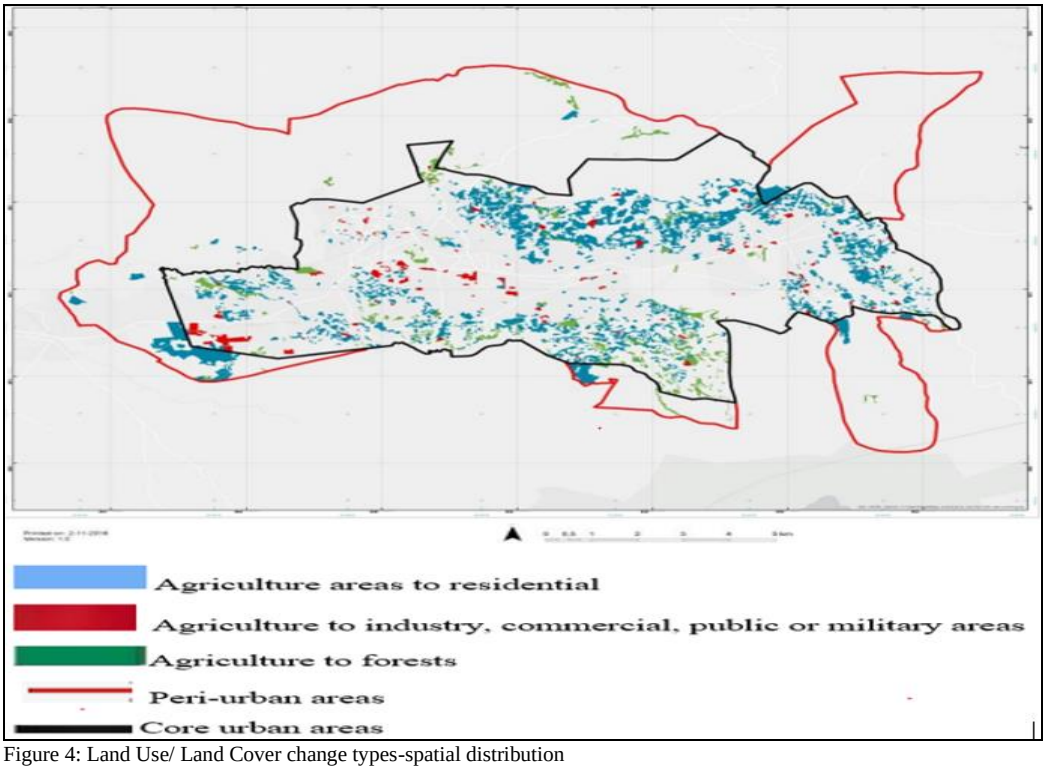


Figure 4: Land Use/ Land Cover change types-spatial distribution
Source: World Bank, 2019

Table 6: A summary of spatial- practice change of peri-urban and urban farming

Type of change	Previous dominant features (before land market intensification)	Current dominating features (after land market intensification
Farming practices	Extensive Above 1 acre	Intensive Below 1 acre
	Mono-cropping	Intercropping
	Crop farming	Horticultural & Arboriculture
Actors & types of farmers	Peri-urban farmers	Peri-urban farmers
	Full time farmers	Urbanites (all types of people living in cities)
		Part time farmers (week end, evening, morning farmers)
Types of farms & tools	Land, hand hoes, slashers	Less than an acre, none-land farms (boxes, bottles, ports, decayed clothes, bags etc, containers, green houses)

Source: Research, 2022

Farms clearly separated urban and rural areas (Geofrey, 2010). In Mbeya city, the existence of Stella farm [1]in Iwambi ward was one of the large-scale farms located in urban fringe. Prior to intensity of land market and land reforms, farming was a full-time employment (Foeken *et al.,* 2004). Farming was mostly undertaken by low-income and uneducated people (Magigi, 2013). Agriculture offered them food and income. Farming was dominated by full time and week end farmers. The former involved people living in peri-urban areas who embraced it as their full-time employment. The latter embodied people who mostly lived in urban and city centres; they visited their farms during weekends, and used this type of farming as either livelihood diversification or survival strategy (Geoffrey, 2010; Briggs and Mwamfupe, 2000). Hand hoes and animal driven ploughs were key agricultural equipments in Mbeya city. Urban agriculture provided urbanites[2] with food (Brinkley, 2012), and they generated income for urban farmers (Opitz *et al.,* 2015). Indeed, through commuting of farmers from peri-urban areas, urbanites were supplied with fruits and vegetables grown from peri-urban areas. But, since land is increasingly being purchased for other non-farm activities such as residence, institutions and commerce, farmlands have declined (Dale *et al.,* 2011; Twarabamenye and Nyandwi, 2012). Thus, part time farming is increasing not only in Tanzania, but also in many African countries.

Today, horticulture, floriculture, arboriculture (cultivation of trees and shrubs) and silviculture (tree growing) are increasing. Growing of flowers and trees replace crops and animal keeping. Agricultural practices are dominated by small scale farming. Farms are small, less than half of an acre or even below. A middleman in Tembela ward observed further that *"Probably, this is also linked to changing town plans. Town planners don't encourage people to cultivate in towns; they just want us to plant trees and fruits."* Labour force is the family power, and hand hoes are still key farming equipment although some new technologies are increasingly being adopted. None-land farms (bottles, pots, buckets) are also used for growing crops, fruits and trees (Figure 5). The meaning of a farm and farmers today has changed dramatically. A farm today is not about land and its related tenure security. Farms are technologies, clothes, carriage materials, green houses etc. Types of farmers are increasing in numbers and typologies. There are week end farmers, evening farmers, and morning farmers. In this regard, most urbanites have become farmers (Foeken, *et al.* 2004). Through growing fruits, trees, grasses and crops at home, in offices or business areas, everyone is a farmer today. Farming takes place in homes, churches, playgrounds and recreation areas such as clubs. These changes are also pertinent in other African countries. In Kenya, the growth of telephone farming is an evolution of peri-agriculture (Limpens *et al.*, 2019). In Ghana, (Kwasi, 2010) and in South Africa (Kobena *et al.,* 2016), peri-urban and small-scale agriculture that depends very much from land is given a sendoff. Farming today in urban areas is for everyone, by everyone and at any time. In this case, land market is a blessing and a curse to indigenous land sellers.

Land market practices: a blessing and or blight for peri-urban Agriculture

Land market is one of the fundamental components of land administration (Locke and Giles, 2016). Different positive and negative impacts of the growing land markets are raised by researchers and academics. In this paper, we examine the opportunities and challenges of growing land markets on peri-urban agriculture and livelihoods of farmers. In terms of opportunities, the findings from questionnaire survey revealed that majority of respondents (44%) (Table 7) reported that new city farming practices cause increase in green spaces. More trees and gardens are established because new owners of land plant trees and flowers to beautify their homes. People living in towns enjoy planting trees and flowers to improve the quality of environment (Manoj *et al*., 2018). Others (23%) noted that new farming practices are discovered and adopted. Techniques such as intercropping, irrigation farming, horticulture and arboriculture are growing. Both food and non-food crops are grown. This is also a sense of sustainable use of resources (Becker, 2013). New farming equipment are adopted and non-land farms are increasing. Today, you don't need land to engage in farming or cultivation of crops. Even those who don't own land can engage in agriculture. Previously, farming was not possible without either owning of or renting a piece of land (Rakodi, 2002). In view of Francesco (2020), integrating urban farming with built environments and new technologies such as green roofs, and plant factories are efficient in terms of water and land uses. This offers proper use of green spaces, and it is a form circular metabolism [3]of urban agriculture. Others, (12%) informed that more people engage in farming. Part time farming undertaken during evening, morning and weekend hours are increasing. Consequently, land market makes agriculture in towns every time activity. Urban workers and businessmen engage in urban farming for livelihood extensification and diversification. This is beneficial for city sustainability and the transaction costs for accessing fruits, trees and vegetables decrease because they are now grown in towns. New green spaces planted with trees and fruits have grown widely, and they contribute to environmental conservation. Manoj *et al* (2018) conceive this as a positive facet of urbanization because it improves the city's beauty.

However, because urban farming is not well governed and sometimes conducted informally, a number of challenges occur to farmers, land sellers and the urban environment itself (Table 7). The findings of this study indicated that most respondents (51%) are concerned with the decline in full time agriculture as a livelihood activity, (6%) are concerned with increased unused land, decreased food crops production (23%) and displacement of full-time farmers due to decreased farm size (15%). Full-time farmers are transformed into other non-farm activities. Although this may not be seen as a problem because one moves from one sector or occupation to another. However, in terms of sustainability and usefulness of this transformation to those selling land, it is a huge problem. Most of those selling land are not able to invest properly; they establish some businesses they don't have experiences or skills. Thus, they end up failing or losing their livelihood assets and everything that were associated with land ownership. Others deploy their income earned into non-productive activities (purchase of clothes, alcohol etc.).

Land market is also a problem because it leads to decline in food crops. Peri-urban farmers currently do not devote their labour force to farming. This has impact not only on productivity, but also on outputs (Magigi, 2013). Farmers themselves have become buyers of food. This is a threat to livelihood of farmers; since they are becoming food insecure. Others are forced to migrate into rural areas to rent farms. One of the farmers who sold all the five acres he had emphasized:

"After selling land, I used the money to pay for school fees for my children, renovated my house and bought clothes for myself. I also bought clothes for other family members and used the rest for health expenses. Then, I was forced to go to rent land in the village for growing food crops."

Indeed, this is a dispossession of not only employment, but also income from agriculture and properties attached to land.

[1] One of the notable farms found in Iwambi ward in Mbeya city that existed before 2014. Because of the growing demand for land, this farm was converted into residential and institutional uses.

[2] People living in towns

[3] A process where materials are used to produce some products and later, they are transformed into other forms of activities and commodities.

Figure 5: Trees and vegetables planted in plastic materials: new types of farms in peri-urban areas
Source: Research, 2022

Table 7: Opportunities and Challenges of Land Market on peri-urban agriculture and livelihoods

Opportunities	N	%	Challenges	N	%
Growth of part-time farming provides rooms for livelihood diversification	63	15	Decline in full-time agriculture as a livelihood activity	205	51
Farming for every urbanite	52	12	Increased unused land due to speculations	24	6
Growing efficiency use of land	13	3	Decreased food crops production	92	23
New farming practices, innovations and types of farms	97	23	Displacement of full-time farmers due to decreased farm size	63	15
Increased green spaces	183	44	Increased solid wastes & Pollution	10	2
From food crops to cash crops-seeds, trees, fruits (entrepreneurial farming)	10	3	Increased invasion of open space	11	3
Total	418	100	Total	405	100

Source: Research, 2022

Therefore, land market is a blessing for those people who are able to invest in an income earning project after selling it. However, it is a thorn tree for indigenous people who are unable to invest and a sendoff of their livelihoods. In terms of environmental sustainability, ungoverned land market and subsequent informal urban agriculture lead to pollution and environmental degradation from unmanaged bottles, containers and plastic bags. Sometimes these new land farms are left unattended. In fact, this is not a failure of peri-urban agriculture to meet its functions for food provision and a livelihood activity, but a failure of other markets such as insurance and credit markets (Colin and Wood house, 2010).

Land Market and Adaptive Strategies of Full-time Farmers

Land market cause change in land uses and the activities conducted on land for livelihoods. Farmers and those whose livelihoods were tied to ownership of land are compelled to adopt different strategies. Results from interviews (Figure 6) with peri-urban farmers indicate that 36% of farmers are engaging in diversification activities for their living; 29% depend from renting land in rural areas; 18% engage in businesses, and 9% purchase land in rural areas. Only 6% of the peri-urban farmers still depend on farming in peri-urban areas, and 2% rely on wage employment. These adaptation strategies have different implications. First, farmers are shifting into diversified strategies. Livelihoods of farmers are being integrated with other socio-economic activities. Farmers are seen engaging in poultry farming, and undertaking businesses. They establish small businesses such as consumer shops, kiosks, and alcohol shops. This a blessing for farmers selling their land. Diversification reduces risks of low production in agriculture and offers different sources of income (Ndumbaro, 2014; Oduro, *et al.*, 2015). Diversification could imply solidification, intensification and securitization (Mwamfupe, 2007). Land market is a blessing for farmers because their livelihood does not depend on one activity. Second, others engage in rural land rentals as among their adaptive strategies.

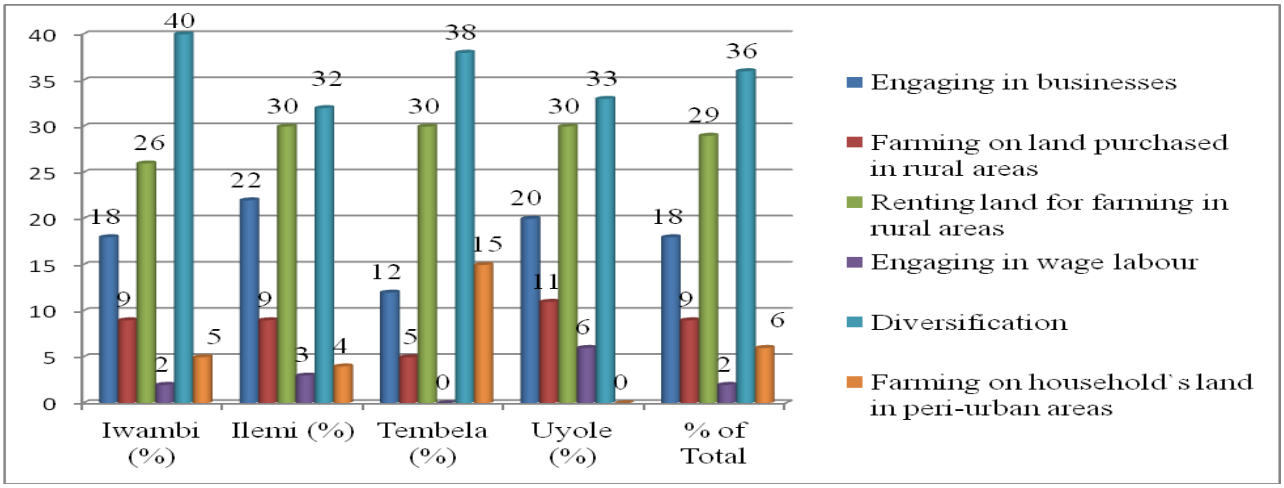


Figure 6: Farmers Livelihood Strategies during Land Market
Source: Research, 2022

This is a spatial change strategy adopted by farmers. Farmers are renting farmlands in villages such as Mwansekwa, Swaya, Kawetele, Nsoho, Lupa and Ndundu and some cross regions to rent farms in Rukwa region. On the one hand, it is a blessing because it is a spatial-diversification strategy. Farmers extend farming areas. On the other hand, it heightens costs of production. Rural land rentals increase transaction costs because farmers pay travel costs and living costs in the places of destination (Farvacque-vitkovi *et al.*, 2007). Also, rural rentals offer temporal ownership of land. Tenants return the rented land to land lords after the expiry of contracts. Consequently, rural land rentals are unguaranteed farming strategy. Lastly, evolutions in peri-urban farming portray that only a few still depend on farming as their main livelihood activity. These have remained engaging in small scale farming.

Conclusions and recommendations

Generally, the paper has analyzed the extent to which peri-urban farming has been impacted by land market. During the pre-colonial periods, land markets were characterized by traditional transaction practices. Sales and purchase transactions were non-monetary, but they were asset-based transactions. During the independence, monetary transactions emerged; lands were and are exchanged with money. Modern land markets have attracted speculative, accumulative and investment land markets and land grabbing. Because of these changes, urban agriculture is being transformed into small scale and non-land farms. As it is transformed, those who depended from farming for their livelihoods are forced to adopt other strategies. Unfortunately, the new strategies adopted do not offer farmers a guarantee to livelihoods. Because of poorly governed transformation, the poor and low-income people lacking capital (finance, education, and information) are dispossessed of their assets and livelihoods. In this way, they view land markets as a curse. Selling land implies not only a lost asset, but the whole bundle of land rights, employment, income and activities performed on the sold land. However, a few people with capital (in terms of finance, education and information) view land market as a blessing. They are able to accumulate land and invest the income they earn (from land sales) in other activities such as building rental houses and establishing consumer businesses.

Amid to these positive and negative impacts, it is undeniably imperative that governance or integration of land market practices into city governance are taken to be significant. Moreover, indigenous people selling their land need to be trained on the best deals of selling land and investing the income they earn. Moreover, land surveying and formalization of land rights should be given a priority to ensure that land owners in peri-urban areas hold title deeds. This will promote growth of formal land transactions. Consequently, we argue that land markets is not generally bad, the weaknesses and associated challenges stand at its governance that pave ways for widespread informalities.

Reference

Aikaeli, J. and Markussen, T. (2022). Titling and The Value of Land in Tanzania, *Journal of International Development* 34 (1), 511-530.https://doi.org/10.1002/jid.3615.

Azadi, H., Eric, V., Janečkováb, K., Skleničkab, P., Dereje, T., Lei F and Witlox, F. (2020). Evolution of Land Distribution in the Context of Development Theories, *Land use policy* 97 (104730): 1-9. 10.1016/j.landusepol.2020.104730.

Barry, M. (2015). Property Theory: Metaphors and the Continuum of Land Rights, A Report 8, UN-HABITAT, UNON Publishing Service Section, Nairobi, Kenya.

Beinstern, H. (2002). Land Reform: Taking a Long (er) View, *Journal of Agrarian Change* 2(4), 433-463.https://doi.org/10.1111/1471-0366.00042.

Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods and Practices*, Textbooks Collection, University of South Florida.

Brinkley, C. (2012). Evaluating the Benefits of Peri-Urban Agriculture, *Journal of Urban Planning Literature* 27(3), 259-269.

Briggs, J. and Mwamfupe, D. (2000). Peri-Urban Development in an Era of Structural Adjustment in Africa: The City of Dar es Salaam, Tanzania. *Urban Studies*, 37(4), 797-809.

Bryceson, D.F. (1997). *De-agrarianisation in Sub-Saharan Africa: Acknowledging the Inevitable*. In Bryceson, D.F. (ed.) UK: Ashgate Publishing Ltd., pp. 1-20.

Cai, M., Murtazashvili, I. and Murtazashvili, J. (2019). The politics of land property rights. *Journal of Institutional Economics*, 16 (2) 151-167.https://doi.org/10.1017/S1744137419000158

Corbetta, P. (2003). *Social Research*: *Theory, Methods and Techniques*, Sage Publications: London.

D'Alessandro, C., Hanson, K. T., & Kararach, G. (2018). Peri-urban agriculture in Southern Africa: miracle or mirage? *African Geographical Review*, *37*(1), 49-68. 10.1080/19376812.2016.1229629

Dale, P., Mahoney, R. and McRalen, R. (2011). *Land Markets* (*3rd* Edition) Report for Royal Institution of Chartered Surveyors (RICS).

De Soto, H. (2000). *The Mystery of Capital*: *Why Capitalism Triumph in the West and Fails Everywhere Else*, Bantam Press, Great Britain.

Durand-Lasserve. A. and Selod, H. (2007). Urban Land Markets, A Paper Prepared for the World. Bank Urban Research Symposium, May 14-16 Washington DC.

Edaku, C., Azumah, O. K. and Asiimwe, S. M. (2023). Relationship between Land Acquisition Processes and Structures on Livelihood Outcomes of Smallholder Farmers in the Bawku District of Northern Ghana. *Open Journal of Social Sciences*, 11, 156-179. https://doi.org/10.4236/jss.2023.116012.

Farvacque-vitkovi, C., Calis, A., Diop, M. and Eghoff, C. *(*2007). Development of Cities of Mali: Challenges and Priorities, Africa Region Working Paper Series 104a, World Bank

Francesco, O. (2020). Innovation and sustainability in urban agriculture: the path forward, *Journal of Consumer Protection and Food Safety, Springer*, 15, 203-204 https://doi.org/10.1007/s00003-020-01293-y.

Foeken, D. W. J. (2004). *Urban agriculture in Tanzania: Issues of sustainability* (No. 75). African Studies Centre.

Geoffrey R. O. (2010). Post-Colonial Migration: Virtual Culture, Urban Farming and New Peri-Urban Growth in Dar es Salaam, Tanzania, 1975–2000. *Africa*, 80, pp 249-274.

Hall, R. and Paradza, G. (2012). Pressures on Land in Sub-Saharan Africa: Social Differentiation and Societal Responses, European Report on Development, Institute for Poverty, Land and Agrarian Studies.

Holden, S. and Otsuka, K. (2014). The Roles of Land tenure Reforms and Land markets in the context of Population Growth and Land Use Intensification in Africa, *Elsevier, Food Policy*, 48, 88 - 97. https://doi.org/10.1016/j.foodpol.2014.03.005.

Colin, J. P. and Woodhouse, P. (2010). Interpreting Land Markets in Africa. *Africa*, 80 (1), 1-133.doi:10.3366/E0001972009001235hor Response.

Kaijage, F and Tibaijuka, A. (1998). Poverty and Social Exclusion in Tanzania, International Institute for Labour Studies, United Nations Development Programme

Kobena, C.D, T. Hanson & George, K. (2016). Peri-urban agriculture in Southern Africa: miracle or mirage? *African Geographical Review*, 37 (1), 49-68.

Kombe, W. J. (2005). Land Use Dynamics in Peri-Urban Areas and Their Implications on the Urban Growth and Form: The Case of Dar es Salaam, Tanzania, *Habitat International* 29 (1), 113-135, Elsevier Ltd, Great Britain.

Kusiluka, M. M., & Kongela, S. M. (2016). Dealing with Speculative Prices in Sub-Saharan African Land Markets. *ERES*, (eres2016_225).

Kwasi, A. A (2010). Urban and Peri-urban Agriculture in Developing Countries Studied Using Remote Sensing and In Situ Methods, *Remote Sensing* 2(2), 497-513, 10.3390/rs2020497.

Laurence, C. B. (2013). Land Sales and Transformation of Social Relations and Land Scape in Peri-urban Areas, Mali, A *Paper Published in Geoforum*, 46(1) 113-123 10.1016/j.geoforum.2012.12.017.

Limpens, G., van Dijk, M.P and de Boer, D. (2019). Telephone Farming: A New Approach for Agricultural Development, A Project with The Latia Resource Centre, Kenya. https://doi.org/10.1108/JADEE-03-2021-0059.

Locke, A. and Giles, H. (2016). Urbanization, Land and Property Rights: The Need to Refocus Attention, A report Prepared by the Overseas Development Institute on Shaping Policy for Development, London, UK.

Magigi, W. (2013). Urbanization and Its Impacts to Food Systems and Environmental Sustainability in Urban Space: Evidence from Urban Agriculture Livelihoods in Dar es Salaam, Tanzania, *Journal of Environmental Protection*, 4 (10), 1137-1148.

Manji, A. (2006). *The Politics of Land Reform in Africa: From Communal Tenure to Free Markets*: 33Zed Books Ltd: London.

Manoj, R; Shemdoe, R; Hulme, D; Mwageni, N and Gough, A (2018). Climate change and declining levels of green structures: Life in informal settlements of Dar es Salaam, Tanzania. *Landscape and Urban Planning*, 180, 282-293. https: doi.org.10.1016/j.landurban.2017.11.01.

Mbeya City Council (2015). Mbeya City Council Socio-Economic Profile, Unpublished Report, Tanzania.

Miles, M. B. and Hubermann, M. A. (1994). *Qualitative Data Analysis: An Expanded Sourcebook (2nd ed.)*, Sage Publications, Thousand Oaks, California, United States of America.

Miller, D., Rana, P., Nakamura, K. and Forrest, S. (2019). A systematic review of the Impact of Forest Property Rights Interventions on Poverty, *World.* https://doi.org/10.1016/j.gloenvcha.2020.102218.

Moyo, S. and Yeros, P. (2005). *Reclaiming the Land: The Resurgence of Rural Movements in Africa*, Asia and Latin America, Zed Books Ltd, Cynthia Street, London, UK.

Msangi, D. (2011). *Land Acquisition for Urban Expansion: Process and Impacts on Livelihood of Peri Urban Households, Dar es Salaam, Tanzania*, Unpublished PhD Thesis, Department of Urban and Rural, Swedish University of Agricultural Sciences, Uppsala.

Mwamfupe, D. (2007). Urban Expansion in Dar es Salaam City in Tanzania: A Blight or Blessing for Peri-Urban Livelihoods? *Africa Tamulmanyok*, 2, 1-14.10.1080/00369229918737070

Myenzi, Y. (2005). Implications of the Recent Land Reforms in Tanzania on the Land Rights of Small Producers, A Paper Prepared for Internal Reflections and Discussion at the Land Rights Research and Resources Institute (HAKI ARDHI) in Dar es salaam, Tanzania in 2005 http://www.google.co.tz/search], site visited on 17/ 05/2023.

Ndumbaro, F. G. J. (2014). Understanding Spatial Distribution of Informal Sector Activities for Income Poverty Alleviation: The Case of Iringa Municipality, Tanzania, *International Journal of Business, Humanities and Technology*, 4(2) 98-105

Napier, M., Berrisford, S., Kihato, C., McGaffin, R. and Royston, L. (2013). *Trading Spaces, Accessing Land in African Cities*, African Minds for Urban Land market, South Africa.doi:10.3384/cu.2000.1525.1571.

Nelson, S. (2008). Farming on the Fringes: Changes in Agriculture, Land Use and Livelihoods in Peri-Urban Dar es Salaam, Tanzania, *Honors Projects, Paper 10*, 1-75.

Needham, B., Segeren, A., & Buitelaar, E. (2011). Institutions in theories of land markets: illustrated by the Dutch market for agricultural land. *Urban Studies*, *48*(1), 161-176.https://doi.org/10.1177/0042098009360682.

Oduro, C. Y., Adamtey, R., & Ocloo, K. (2015). Urban growth and livelihood transformations on the fringes of African cities: A case study of changing livelihoods in peri-urban Accra. *Environment and Natural Resources Research*, *5* (2), 81. 10.5539/enrr.v5n2p81

Opitz, I., Berges, R., Piorr, A., & Krikser, T. (2016). Contributing to food security in urban areas: differences between urban agriculture and peri-urban agriculture in the Global North. *Agriculture and Human Values*, *33*, 341-358. DOI 10.1007/s10460-015-9610-2

Panman, A. and Gracia, L. N. (2022). Titling and beyond: Evidence from Dar es Salaam, Tanzania, *Land use policy*, Vol.117, 1-12, https://doi.org/10.1016/j.landusepol.2021.105905.

Rakodi, C. (2002). A Livelihood Approach: Conceptual Issues and Definitions. In Rakodi, C. and Lloyd-Jones, T. (Eds), Urban *Livelihood*: *A People-Centred Approach to Reducing Poverty*, Earth Scan Publication, UK and USA.

Reznik, O. (2014). Method of Property Acquisition and Social Status in Post-Communist Society. *SAGE Open*, *4*(3). https://doi.org/10.1177/2158244014545468.

Sanga, S. A and Mwasumbi, A. N. (2019,). Land and housing transactions in Tanzania: An evaluation of title risk vulnerabilities in Kinondoni Municipality Dar es Salaam. In *Urban Forum*,30, (3), 261-287). Dordrecht: Springer Netherlands. https://doi.org/10.1007/s12132-019-09363-7

Tate, L. B., & de Carvalho, J. (2019). The 1952 Meru Land Case: A Pan Africanism Mission. *Journal of Education and Social Policy*, 6 (3), 44-49 doi:10.30845/jesp. v6n3p7.

Thuo, A. D. M. (2013). Impacts of Urbanization on Land Use Planning, Livelihood and Environment in the Nairobi Rural-Urban Fringe, Kenya, *International Journal of* Scientific *and Technology Research*, 2 (7), 70-79.

Wallace, J. and Williamson, I. (2006). Building land markets. *Land use policy*, *23*(2), 123-135.

Walliman, N. (2011). *Your research project: Designing and planning your work*. Sage Publications

World Bank (2019). Earth Observation for Sustainable Development, Urban Mbeya City-Operations Report, Issue No.3, Tanzania.